

**REMARKS**

In the Office Action, the Examiner rejected claims 1-8, 11, 12, 14, and 15 and withdrew claims 9, 10, 13, and 16-20 from consideration. By the present Response, Applicants have cancelled claims 18-20, and added a new independent claim 21. Further, Applicants have amended the drawings and claim 4 to correct typographical errors, and amended the Specification to include in the Detailed Description certain subject matter disclosed in the original claims, but inadvertently omitted from the description. Lastly, Applicants amended claims 1 and 14 to clarify features of the present technique. No new matter has been added. Upon entry of the amendments, claims 1-17 will remain pending in the present patent application. Reconsideration and allowance of all pending claims are respectfully requested.

**Restriction and Elections**

In a previous Response, Applicants elected to prosecute Group I, claims 1-17, drawn to a method. *See* Response to Restriction Requirement dated April 15, 2004, page 1. Therefore, by the present Response, Applicants have cancelled the remaining claims 18-20 without prejudice for possible inclusion in a divisional application. In another previous Response, Applicants elected to prosecute species A1 (claims 8 and 15) of Group I. Species A1 is drawn to an embodiment of heating the extrusion in a glycol bath. *See* Second Response to Restriction Requirement dated June 2, 2004, page 1.

Further, in a telephone conversation held on September 16, 2004 between the Examiner and Applicants' attorney, John Pilarski, Applicants' attorney elected to prosecute Species B1 (claim 12) which is drawn to an embodiment of injecting foam into at least one cavity. By the present Response, Applicants hereby affirm the election of species B1. Moreover, in the telephone conversation on September 16, 2004, the Examiner and Applicants' attorney agreed that claims 1-7, 11, and 14 are generic to both species A1 and species B1; claims 8 and 15 are readable on species A1; and claim 12 is

readable on species B1. As such, it was agreed that claims 1-8, 11, 12, 14 and 15 would be examined for the purpose of the first Office Action on the merits.

**Objection to the Drawing**

The Examiner objected to the drawing because the word “temperature” in the figure was misspelled. Therefore, Applicants have corrected the figure and submitted a replacement sheet of the figure which is enclosed with the present Response. Accordingly, Applicants respectfully request that the Examiner withdraw the objection to the drawing.

**Rejection Under 35 U.S.C. § 112**

The Examiner rejected claim 4 under 35 U.S.C. § 112, Second Paragraph, as being indefinite. Therefore, as indicated above, Applicants have amended claim 4 to correct a typographical error. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claim 4 under 35 U.S.C. § 112.

**Rejections Under 35 U.S.C. § 103**

The Examiner rejected under 35 U.S.C. § 103(a): claims 1-5 and 7 as being unpatentable over Cousin et al. (4,643,857); claims 6 and 8 as being unpatentable over Cousin et al. in view of Kaspe (4,525,319); claim 11 as being unpatentable over Cousin et al. in view of McBain et al. (5,385,963); claim 12 as being unpatentable over Cousin et al. in view of Bartlett et al. (5,164,419); and claims 14 and 15 as being unpatentable over Cousin et al. in view of McBain et al. and Kaspe. Of these claims, claims 1 and 14 are independent. Applicants respectfully traverse these rejections.

***Legal Precedent***

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). To establish a *prima facie* case, the Examiner must show that the combination includes *all* of

the claimed elements, and provide a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

### ***Independent Claims***

Independent claim 1, as amended, recites, *inter alia*, a “preformed thermoplastic polymer extrusion comprising vinyl polymer.” Similarly, claim 14, as amended, recites a “preformed vinyl extrusion comprising vinyl polymer thermoplastic.” Conversely, the Cousin et al. reference discloses an extrusion that is a polyamide fiber-reinforced composite. Col. 4, lines 41-48. Indeed, the Examiner admits that “Cousin et al. do not specifically teach that the thermoplastic polymer may be a vinyl polymer.” Office Action Mailed October 5, 2004, page 7. In an effort to remedy this deficiency, the Examiner relied on the McBain et al. reference to “teach a modified unsaturated polyester or vinyl ester composition.” *Id.* However, polyester or vinyl ester compositions, which are *thermosets*, are completely inapposite a vinyl polymer, which is a *thermoplastic*. The Examiner is clearly confused in equating polyester or vinyl ester compositions with a thermoplastic. See Office Action Mailed October 5, 2004, page 7 (asserting incorrectly that “one of ordinary skill in would have been motivate to use a *vinyl ester composition*

*as the thermoplastic material* in the process of Cousin et al.”) (emphasis added). Again, a vinyl ester composition is a thermoset and *not a thermoplastic*.

Moreover, Applicants emphasize that it is not surprising that Cousin et al. fails to disclose a vinyl polymer because vinyl polymers, due to their rigidity, are not desirable in fiber-reinforced composites for tennis rackets or similar applications. Therefore, even if McBain et al. or any other reference disclosed a vinyl polymer, there would be no suggestion or motivation to incorporate the vinyl polymer in the fiber-reinforced composite of the Cousin tennis racket or similar applications. Thus, the teaching of any reference, including the Kasper reference relied on by the Examiner in the cited combination to disclose “temperature and timing in the heating and cooling in the process of Cousin et al.,” would not logically be followed to turn the Cousin fiber-reinforced racket into a vinyl polymer racket. Such a modification of Cousin et al. is not desirable, and thus would be improper.

Accordingly, Applicants respectfully request withdrawal of the rejection of claims 1-5 and 7 under 35 U.S.C. § 103(a) and the rejection of claims 14 and 15 under 35 U.S.C. § 103(a), and allowance of the claims.

#### ***Dependent Claims***

The Examiner combined several references to reject the remaining dependent claims. However, none of the references in the cited combinations obviate the deficiencies discussed above with regard to independent claims 1 and 14. Therefore, the dependent claims are believed patentable by virtue of the subject matter they separately recite and also because of their dependency on an allowable base claim. Accordingly, Applicants respectfully request the Examiner withdraw the rejections and allow the claims.

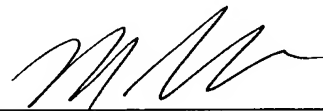
***New Claim***

By the present response, a new independent claim 21 is added. Claim 21 recites steps similar to those of claim 14, and relates specifically to bending of vinyl polymer extrusions. As noted above, none of the prior art references relied upon by the Examiner, either separately or in combination, suggest such processing. Specifically, the Cousin et al. reference relates to starting materials that are not similar in nature or in use to vinyl polymers. The McBain et al. reference does not relate to thermoplastics at all. Moreover, nothing in the art would suggest the use of the method of Cousin et al. for bending a vinyl polymer extrusion as claimed. Accordingly, claim 21 is believed to be in condition for allowance, and its consideration is requested.

**Conclusion**

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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**AMENDMENT TO THE DRAWING**

Please replace the single figure with the attached replacement figure.